

What is claimed is:

1. An electrode of an electrochemical battery comprising:
an electrode catalyst; and
5 an electrode catalyst support member made of a fiber stack of conductive
metal material to which the electrode catalyst is attached.

2. The electrode of claim 1, wherein the electrode catalyst has a
granule form.

10 3. The electrode of claim 1, wherein the electrode catalyst has a
filament shape.

4. The electrode of one of claims 1 to 3, wherein the surface of the
15 electrode catalyst is coated with nickel.

5. The electrode of claim 4, wherein the electrode catalyst support
member is made of nickel or a nickel alloy.

20 6. The electrode of claim 1, wherein the electrode catalyst support
member is a fiber sintered body formed by sintering fibers of conductive metal
material.

7. The electrode of claim 1, wherein the electrode catalyst support
25 member is formed with a pair of sheets with an electrode catalyst attached only at

one side thereof, and the pair of sheets are mutually overlapped in such a manner that the sides with the electrode catalyst attached thereon meet.

8. The electrode of claim 1, further comprising:

5 a housing for accommodating the electrode catalyst support member, being made of metal material with a conductivity, and having a plurality of holes.

9. The electrode of claim 8, wherein the housing is a mesh.

10 10. The electrode of claim 8 or 9, wherein the housing is made of nickel or nickel alloy.

11. The electrode of claim 1, wherein the electrode catalyst support member additionally contains fluoro polymer.

15 12. The electrode of claim 11, wherein the fluoro polymer is PTFE.

13. The electrode of claim 1, wherein the fiber of the electrode catalyst support member has a diameter of 1 ~ 100 μm .

20 14. The electrode of claim 1 or 13, wherein the fiber constituting the electrode catalyst support member has a length of 10 ~ 10,000 μm .

25 15. The electrode of claim 1, wherein the electrode catalyst is metal halide.

16. The electrode of claim 1, wherein the electrode catalyst is hydrogen storage alloy.

5 17. An electrochemical battery having the electrode of claim 1.

18. The battery of claim 17, wherein the electrochemical battery is a fuel cell.

10 19. An electrode of an electrochemical battery made of a fiber stack of an electrode catalyst.

20. A method for manufacturing an electrode of an electrochemical battery comprising the steps of:

15 attaching an electrode catalyst to an electrode catalyst support member made of a fiber stack of conductive metal material; and

forming the electrode catalyst support member with the electrode catalyst attached thereto as an electrode of an electrochemical battery.

20 21. The method of claim 20, wherein the electrode catalyst has a granule form.

22. The method of claim 20, wherein, in the attaching step, the electrode catalyst support member is put in a solution, and the electrode catalyst
25 is dispersed on the electrode catalyst support member, so as to be attached

thereto.

23. The method of claim 22, wherein, in the attaching step, liquid particles containing the granule type electrode catalyst are sprayed to the electrode catalyst support member, so as to be attached thereto.

24. The method of claim 22 or 23, wherein the attaching step comprises a sub-step of drying the electrode catalyst support member after the liquid particles are sprayed.

25. The method of claim 20, wherein the electrode catalyst support member is a metal fiber sintered body formed by sintering fibers of conductive metal material.

26. The method of claim 20, wherein the forming step comprises:
press-molding the electrode catalyst support member with the electrode catalyst attached thereto; and
processing the press-molded electrode catalyst support member to an electrode in a desired size.

27. The method of claim 26, wherein, in the press-molding step, the pair of electrode catalyst support member with the electrode catalyst attached thereto is press-molded by mutually overlapping the sides with the electrode catalyst attached thereto.

28. The method of claim 26 or 27, further comprising the step of:

enclosing the processed electrode with a housing which is made of metal material with a conductivity and has a plurality of holes, after the processing step.

5 29. The method of claim 28, wherein the housing is made of nickel or a nickel alloy.

30. The method of claim 28 or 29, wherein the housing is a mesh.

10 31. The method of claim 20, wherein the electrode catalyst support member is a non-woven fabric made of conductive metal material.

32. The method of claim 20, wherein the electrode catalyst has a filament shape.

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33. The method of claim 20, wherein the electrode catalyst is metal halide.